

CLAIMS

1. A method of radiation processing of a product package of essentially equal rectangular size in a device having a radiation source, a collimator having a variable aperture, and a turntable, said radiation processing resulting in a point in the product package where the dose is minimal ( $D_{\min}$  point) and a point in said product package where the dose is maximal ( $D_{\max}$  point) comprising the steps of:

- determining a first value of the collimator aperture, by increasing said aperture from a small value, where the  $D_{\max}$  point is located near the centre of the product package, up to a value where the  $D_{\max}$  point moves near to the centre of a small side of said package's rectangular horizontal cross-section;
- determining a second value of the collimator aperture, by further increasing the collimator aperture up to a point where the  $D_{\min}$  point moves from a point near the corner of the product package to the centre of said package;
- processing said package with radiation, the collimator aperture being kept at a constant value comprised between said first and said second value, the turntable being rotated at a variable speed.

2. The method according to claim 1, characterized in that the collimator aperture is selected as being said second value.

3. Apparatus for radiation processing of packages comprising a radiation source, a collimator having a variable aperture, and a turntable, characterized in that said collimator is adapted for adjusting its aperture prior to irradiation of a package.

4. The apparatus according to claim 3, characterized in that the ratio of collimator aperture over the distance  $d_1$  from radiation source to front face of collimator is adjustable between 0.54 and 0.73.

5                    5. The apparatus according to claim 3, characterized in that the ratio of collimator aperture over the distance  $d_2$  from radiation source to centre of turntable is adjustable between 0.11 and 0.16.

6. Use of a method according to any one of  
10 claims 1 to 2 or of an apparatus according to any one of claims 3 to 5 for irradiating product packages having a mean density comprised between 0.4 and 0.8 g/cm<sup>3</sup>.